United Nations ECE/CES/2016/…

Economic and Social Council

Distr.: General
13 January 2016

English only

Economic Commission for Europe

Conference of European Statisticians

Seminar on the Role of National Statistical Offices in the Production of Leading, Composite and Sentiment Indicators

Geneva, 8-10 December 2015

Report

Note by the secretariat

Summary

The Seminar on the Role of National Statistical Offices in the Production of Leading, Composite and Sentiment Indicators, 8-10 December 2015, was organized following the decision of the Conference of European Statisticians in April 2014.

The present document is the report of that seminar, and is provided to inform the Conference of European Statisticians of the organization, outcomes and recommendations of the seminar.

I. Introduction

1. The Seminar on the Role of National Statistical Offices (NSOs) in the Production of Leading, Composite and Sentiment Indicators (LCS indicators) was held in Geneva on 8-10 December 2015.

2. The seminar was attended by representatives from Colombia, Denmark, Egypt, Finland, France, Germany, Hungary, Indonesia, Israel, Italy, Latvia, the Netherlands, Oman, Poland, Portugal, Slovenia, the State of Palestine, Sweden, Tunisia, Turkey and the United States of America. The seminar was also attended by representatives of various international organizations: the European Commission, Eurostat, the United Nations Statistics Division (UNSD), the United Nations Economic and Social Commission for Western Asia (UNESCWA), OECD and the World Trade Organization (WTO). Non-Governmental Organizations (NGOs) and academia were represented by the Ca' Foscari University of Venice, Fondazione Eni Enrico Mattei, the Higher School of Economics of the Russian Federation, the KOF Swiss Economic Institute, the Università Politecnica Delle Marche, The Netherlands Institute for Social Research, the University of Geneva and the University Tor Vergata of Rome.

3. The seminar was prepared by an organizing committee consisting of Netherlands (chair), Denmark, Hungary, Israel, Italy, Latvia, Mexico, Eurostat, the Organisation for Economic Cooperation and Development (OECD), Observatoire de la Finance, Geneva, and the University of Geneva.

4. Mr. Leendert Hoven (Netherlands) chaired the seminar. The sessions of the seminar were chaired by Mr. Daniel Roash (Israel), Mr. Stefan Sperlich (University of Geneva), Mr. Frank van de Pol (Netherlands), Mr. Mauro Politi (Italy), Mr. Gian Luigi Mazzi (Eurostat) and Mr. Christian Gayer (European Commission).

II. Organization of the seminar

5. The seminar was structured in the following sessions and activities:

(a) Session I: Issues specific to economic indicators

(b) Session II: Issues specific to social indicators

(c) Keynote speech, Enrico Giovannini: Composite indicators in the context of the data revolution

(d) Session III: The role of NSOs in the compilation of LCS indicators

(e) Regional perspective from the UN Economic and Social Commission for Western Asia

(f) Keynote Speech, Jan Egbert Sturm: Allowing composite indicators to learn

(g) Group work: Strategic challenges for NSOs in producing LCS indicators

(h) Session IV: The role of NSOs in the dissemination of LCS indicators

(i) Voting exercise: Priority needs of NSOs

(j) Panel Discussion: Possible future work on LCS indicators

(k) Future work

III. Summary of the main conclusions reached at the seminar

6. The main conclusions and recommendations for future work are given below. The summary of the main issues discussed at the substantive sessions and notes from the keynote speeches, the group work, the voting exercise and the panel discussion are presented in Annex I. Annex II contains more detailed notes from the group work presentations. All documents from the seminar are available at www.unece.org/index.php?id=40282#/.

Conclusions and recommendations for future work

7. The participants of the seminar:

(a) Recognized that a number of countries have considerable experience producing LCS indicators while others have little or no experience in this area. A variety of methods and techniques are available.

(b) Suggested UNECE organize an expert group meeting in late 2016 or early 2017, in cooperation with interested organizations and countries, to exchange experiences and good practices in producing LCS indicators. Topics could include distinguishing LCS indicators from other statistical indicators, communication, quality issues, use of composite indicators in relation to SDGs and economic versus social indicators. Experts from NSOs, relevant organizations and the research community should be invited to participate.

(c) Noted that there is a growing demand for LCS indicators, while there are different practices in different countries, as well as different views on the role of NSOs in the production of LCS indicators.

(d) Recognized that producing LCS indicators according to the principles of official statistics will add value and trust to the statistics and help meet user needs.

(e) Agreed that it would be useful to develop recommendations compilation and dissemination of LCS indicators to guide NSOs who are producing or plan to produce LCS indicators.

(f) Supported the establishment of a Task Force to clarify the role of NSOs in producing LCS indicators and develop recommendations (criteria) for NSOs for compiling and disseminating LCS indicators, taking into account existing guidelines and handbooks and recent methodological developments and experiences.

8. The following countries and organizations expressed interest in contributing to future work in this area: France, Italy, Israel, the Netherlands, Sweden, Turkey, UNSD, ESCWA, Eurostat and OECD.

Annex I

Summary of the discussion

A. Session I: Issues specific to economic indicators

1. Economic LCS indicators are used by a number of NSOs, central banks and research institutes. These indicators are mainly used to track economic activity within a country and provide more timely estimates of macroeconomic indicators, such as GDP. Some countries rely on well-established methodologies to construct these indicators, while others use new statistical and econometric models.

2. Economic sentiment indicators, as presented by the Italian National Institute of Statistics, can provide more timely measures of economic activity. However, there are some methodological issues to be considered, and further tests need to be carried out to evaluate the performance of these indicators.

3. A number of methodological issues were discussed in this session, such us how to assess the quality of an indicator and how to assign weights. During the discussion it was emphasized that the methods used for constructing LCS indicators should be guided by a clearly defined objective function, which is typically the correlation with a given economic reference series.

4. The problem of interpreting economic indicators was briefly addressed. Users require more timely and accurate data, but often economic leading indicators monitoring the economy are confused by users with objective quantitative measures like the GDP.

5. Other points examined by the presenters and participants addressed the importance of having long time series for economic LCS indicators. The effects of seasonal adjustment and revisions that result in updates of time series create additional difficulties that are specific to economic indicators.

6. The question of who are the users of economic indicators was also briefly discussed. In Sweden, the main users of economic indicators are forecasters from central banks and other government institutions. Other users are researchers, private companies and the media.

7. Throughout the discussions, the importance of having a quality framework for evaluating the indicators was highlighted. It was also noted that it is important to clarify the role of NSOs in producing these indicators, taking into account the specificities of various statistical agencies and the fact that many NSOs are still considering whether to produce LCS indicators.

B. Issues specific to social indicators

8. Compiling social indicators, such as quality of life, happiness and well-being presents different challenges than for economic indicators. For example, in contrast to economic indicators, social indicators often lack clear or well-defined reference series. Normalization and standardization of values can be difficult and, consequently, aggregating data is more problematic.

9. Many organizations that measure quality of life and well-being (e.g. OECD with its Better Life Index) adhere to the report by the Stiglitz Commission on the Measurement of Economic Performance and Social Progress. Nevertheless, there is lack of standardization among countries for measuring social phenomena. Most institutions that construct social

indicators have organized the process into two layers: a generic layer of concepts, domains or dimensions, and a second layer of indicators.

10. The question on assigning weights was discussed at length. There are clear differences between countries in the weights attached to each dimension of a given social phenomenon; thus, many variations exist in the way NSOs publish social indicators. However, it was noted that the effects of weighting should not be overstated, and defining weights is not the only complexity for social indicators; aggregation methods are equally important and challenging.

11. Social indicators are gaining attention from media and interest from policymakers. The NSO in Hungary, for example, organized meetings with policymakers on how to publish quality of life results. In Germany, the Federal Government decides on the quality of life dimensions that should be implemented by the NSO.

12. Other points addressed during this session include treating sustainable development indicators separately from other social indicators, the use of survey data versus administrative data and the complexity of mixing objective and subjective indicators in measuring quality of life.

13. Several speakers stressed that there is a need for standardising the dimensions used for social indicators. International organizations are in a good position to set international standards and could facilitate this work. Countries that prefer to have their own local well-being index should at least provide the indicators that are required for the standard dimensions.

C. Keynote Speech, Enrico Giovannini: Composite indicators in the context of the data revolution

14. Enrico Giovannini, UN Secretary General's Independent Expert Advisory Group on Data Revolution for Sustainable Development, spoke about *Composite Indicators in the Context of the Data Revolution*. He stressed the importance for NSOs to meet evolving user needs and that producing LCS indicators according to the principles of officials statistics will add value and help providing societies with relevant statistical information. The risk of misuse and misinterpretations also exists in relation to 'standard' statistical indicators, and should not be an argument for not compiling LCS indicators.

15. Mr Giovannini recommended continuing work on LCS indicators to support NSOs that wish to produce such types of statistics. On the issue of weighting he recommended using the results of research or, e.g., asking the public in surveys, and referred to proceedings of the 'GDP and Beyond' initiative for pros and cons for different methods to determine weights. Weighting should be feasible within dimensions but is more problematic across dimensions. Mr Giovannini, finally, advised to be careful in the communication of these statistics.

D. The role of NSOs in the compilation of LCS indicators

16. The different challenges and opportunities that come with compiling LCS indicators were discussed during this session. In general, participants agreed that NSOs are well placed to compile LCS indicators based on their impartiality, expertise in processing data and position as trusted data providers in their countries. As noted by Sweden, there is, nevertheless, a persistent challenge to present statistical data in a timely, accurate, consistent and comparable way.

17. The relationship between official statistics and LCS indicators was discussed. The question arose of whether LCS indicators can be considered official statistics, or if they should be considered experimental?

18. The importance of good cooperation between different institutions within a country was stressed. Participants noted that there is a need for a closer cooperation between NSOs, central banks, research institutes and academia in order to coordinate work on LCS indicators.

19. Also discussed was the question of how to better address growing user needs for LCS indicators. Policymakers require LCS indicators for evidence-based policymaking. On the other hand, data users often do not see the difference between LCS indicators and other indicators, which can lead to misinterpretation. Further work is needed to disseminate data in a user friendly way.

20. Changes in the economy may require new indicators. NSOs have the task of developing and publishing new indicators that better meet users' future needs. Variables from different surveys and registers may need to be coordinated to give a better perspective of a changing world. The new indicators should also be easy to understand, as timely as possible, transparent and based on consistent methods.

21. It was noted that compilation of LCS indicators should be left to other institutions if they are well positioned to do so; for example, indicators on financial markets should be left to central banks. Several participants mentioned that subjective indicators should be compiled by other organizations than the NSOs.

22. The need for longer time series was discussed throughout the seminar. In compiling data, revisions in time series should be minimized. The benefits and drawbacks of using a large number of variables versus a smaller data set were examined.

23. Meeting participants were informed about the publications that are being prepared by the UNSD in collaboration with Eurostat, member states and academia. UNSD is planning to publish a Handbook on Economic Tendency Surveys, a Handbook on Cyclical Composite Indicators, a Handbook on Rapid Estimates and a Handbook on Data Template and metadata for short term statistics. The purpose of these handbooks is to provide standard methodology for generating high quality early warning and business cycle indicators to ensure their international comparability and communication strategy for such indicators.

E. Regional perspective from the UN Economic and Social Commission for Western Asia

24. LCS indicators were also discussed from the perspective of Arab countries. The UN Economic and Social Commission for Western Asia (UN-ESCWA) gave a presentation on economic sentiment indicators in the region, the State of Palestine gave a presentation on short-term indicators and Egypt made an intervention about their work in this area.

F. Keynote Speech, Jan Egbert Sturm: Allowing composite indicators to learn

25. Jan Egbert Sturm, Konjunkturforschungsstelle (KOF) of the Swiss Economic Institute gave a speech on *Allowing composite indicators to learn. An application to the KOF Economic Barometer*. Mr Sturm presented the various steps in the production of the KOF leading composite indicator for economic growth in Switzerland: the selection of reference series; variable selection procedure; and construction process.

26. The KOF has implemented a new, semi-automated method for constructing the composite indicator based on some 200 individual variables. The variables are selected according to their correlation with the reference series. The large number of variables means that structural changes to some extent can be gradually incorporated by omitting or including variables, and there is no need for filtering or smoothing time series.

G. Group work: Strategic challenges for NSOs in producing LCS indicators

27. The following six thematic groups were formed: (1) user needs; (2) dissemination strategies; (3) methodological challenges; (4) role of NSOs – criteria for involvement; (5) role of NSOs – risks and challenges and (6) international cooperation. The main outcome of the group work were as follow:

28. Many of the challenges raised during discussion of LCS indicators are not unique to these kinds of indicators. There are similar issues with producing the "standard" indicators that are already in NSOs' work programmes.

29. There are good reasons for NSOs to produce LCS indicators, since NSOs are trusted, impartial producers of official statistics. LCS indicators were generally not seen as being "too controversial" for NSOs to produce. There was recognition that their production could risk damaging NSOs' credibility, but this was seen as a manageable risk.

30. Other considerations for NSO production were seen as equally important, such as policy relevance of the indicators and practical matters, such as financial and human resources and access to data.

31. Production should be left to other institutions (e.g., Central Banks, research institutions or private companies) when they are better equipped to do so in terms of resources or access to data or when the indicators are still in the experimental stage.

32. While many issues overlap with issues for standard indicators, there are some particularities of LCS indicators concerning *compilation methods*, which will likely involve some different practices from those used by NSOs for standard indicators, and *dissemination strategies*, which should include special provisions to explain the particularities of LCS indicators and respond to misuse. NSOs should be aware of the need for careful communication of these indicators.

33. While in some areas of LCS indicators there exist methodological handbooks and guidelines there is a lack of internationally agreed recommendations for producing LCS indicators according to the principles of official statistics. To this end, international organizations could help by supporting future international cooperation and facilitating exchange of experiences and good practices.

34. One major theme that emerged was a need for continued communication: between NSOs and users to assess user needs and explain methods to prevent misunderstandings; between NSOs and other producers, to build upon existing guidance on methods and definitions; and amongst NSOs from different countries to share methods and good practices.

35. More detailed notes from the group work presentations can be found in Annex II.

H. The role of NSOs in the dissemination of LCS indicators

36. Innovative and user friendly ways of disseminating both social and economic indicators were presented during this session. It was highlighted that it is important to

display information in a way that is easy to understand and by using more data visualization tools, such as infographics.

37. There is a strong interest from NSOs and other producers of LCS indicators in the various ways of disseminating these indicators. Interest in dissemination tools also demonstrates the increasing relevance of these indicators for NSOs.

38. LCS indicators can compress very complex information into one indicator. Interpretation of these indicators can be difficult, especially for non-experts. Further effort, therefore, is needed to explain the meaning of these indicators to the general public. There is also a need to find better ways to popularize messages that LCS indicators are trying to convey.

39. When disseminating LCS indicators, it is important to include appropriate explanations and any other information that could be useful, in order to provide users with the necessary tools for correct interpretation and use and avoid misunderstandings. This is particularly important for indicators based on subjective data.

40. Disseminating LCS indicator results also presents a number of challenges for NSOs. Ensuring full transparency within the constraint of data confidentiality and providing contextual information for better data analysis are among the difficulties that NSOs face in their work with LCS indicators. In addition, NSOs bear the responsibility of correcting major misinterpretation of their data published in the media. In Poland, for example, the NSO contacts the authors with explanations and corrected information when they encounter erroneous interpretation of their Business Tendency Survey data.

41. Finding better ways to disseminate information on LCS indicators is also important in terms of equal access to information and from the educational point of view. Better understanding of data is beneficial for all users of statistics.

I. Voting exercise: Priority needs of NSOs

42. Participants were asked to vote for four proposals for future work based on how useful it would be for their work. Each participant had four votes. The proposals for future work are listed below starting with the largest number of votes received:

(a) Practical guidance on general issues in compiling LCS indicators, such as how to select component indicators and determine weights (53 votes).

(b) A quality framework for LCS indicators to determine whether indicators are sufficient quality to be considered official statistics (52 votes).

(c) A reference list of existing LCS indicators and methodologies used (30 votes)

(d) Practical guidance on general issues in disseminating LCS indicators (17 votes).

J. Panel Discussion: Possible future work on LCS indicators

43. The following questions were addressed during the panel discussion:

(a) Why should NSOs be involved in producing LCS indicators?

(b) What can economic statisticians learn from experiences in the field of social indicators and vice versa?

(c) Is there a need for further development of recommendations or guidelines and in which areas?

(d) What could be the role of international organizations in supporting NSO involvement in LCS indicators?

44. The following points were made:

45. There are many reasons for NSOs to be involved in the production of LCS indicators. They already have the capacity to process data according to high standards of professionalism and transparency. The use of clear methodologies and reliable data was also mentioned as an important strength of NSOs producing these indicators. At the same time, NSOs should take into account policy relevance and user needs.

46. When comparing economic and social statistics, it was noted that economic statisticians are sometimes too conservative about disseminating data. On the other hand, in social statistics, common measurement scales are often missing, the methodological basis may be less strong than in economic statistics, measures are more often based on sentiment indicators and there are almost no revisions of data. It is also more difficult to draw meaningful conclusions from social indicators.

47. In terms of the need for guidelines and recommendations, utilization of existing guidelines produced by the UN, EU and OECD was highlighted. There is a need for more practical guidance and case studies in order to learn from best practices. This is especially true for countries that are still considering whether to produce LCS indicators. There is a need for further development of guidelines and recommendations, taking existing literature into account.

48. It was noted that clear differentiation should be made between leading, composite and sentiment indicators. Furthermore, NSOs should not be the sole producers of LCS indicators since other organizations may be more suitable producers for certain indicators. The question of whether LCS indicators should be considered official statistics was discussed.

49. There is an important role for international organizations in supporting NSOs in terms of providing guidance for the production of LCS indicators. International organizations help form networks of experts and facilitate exchange of experiences and best practices.

Annex II
Detailed notes from the group work presentations

Group 1: User needs

1. Question 1: In what ways could the LCS indicators produced by NSOs better meet user needs?

This is a question of trustworthiness. NSOs have to make data transparent. Interpretability is important. NSOs should be better informed of user demands in order to improve data collection. A point of contact could be designated for this purpose.

2. Question 2: How is it possible for NSOs to better understand the demand for these indicators and who the users are?

NSOs could hold joint workshops with academics, journalist, etc., to learn what their needs are and share how indicators are constructed. Analyses of website traffic could also shed light on which indicators are in demand. A user survey could also be conducted, though this should probably not be done every year. Social media could also be used – perhaps a blog or satellite community could be maintained.

3. Question 3: What are the advantages and disadvantages of obtaining LCS indicators from NSOs instead of using other sources (e.g., the private sector)?

Advantages: NSOs have access to microdata and are trustworthy, independent and adhere to high data quality standards of data quality. Disadvantages: resources for complex models or research are often not available. Sometimes the private sector produces indicators in a more timely fashion.

4. Are there specific LCS indicators that NSOs do not regularly produce that would be useful for users?

Composite indicators that are politically relevant should be produced. The specific indicators will depend on the country, but could include consumer confidence indicators, PMIs and sustainability indicators.

5. Are there any other major challenges that you have encountered in working with LCS indicators? If so, what are they?

Some challenges are:

-Revisions of reference series
-Lack of reference series
-Irregularity of LCS indicator updates
-Misunderstanding/misuse of LCS indicators by users
-Complications with international comparisons

Group 2: Dissemination strategies

6. Participants made a general comment that there was some overlap between questions in this group.

7. Question 1: How can NSOs best explain the methodology used to an indicator's users?

It is important to get to know users, have target groups and explain indicators in different ways for different target groups. Researchers need quite detailed information and standardized metadata. Short and clear definitions should be used for the general public, and titles of indicators should be self-explanatory. As mentioned in Group 1, meetings or workshops should be held with users to get to know their needs.

8. Question 2: What are the main problems or misunderstandings on the user side?

One problem is a lack of statistical literacy. The complexity of these indicators makes them difficult to understand. Sometimes biased views impact how indicators are used or understood. Since many of these indicators are relatively new, there is no clear narrative in the mind of people. This is in contrast to, for example, GDP, which is also complex, but everyone thinks they know what it means. It is also difficult for users to understand differences between different types of indicators – those based on opinions vs. those based on objective data, for instance.

9. Question 3: How could a specific communication strategy reduce the risk of misinterpreting such indicators?

Again, misinterpretation of indicators can be intentional and is often due to biased views or the desire of media to tell stories. One more, a specific communication strategy should target specific groups of users. For example: reference books with detailed information for specialists, more graphical representations for the general public and oral explanations for illiterate users (not so relevant in Europe, but elsewhere). NSOs should encourage feedback, learn from their mistakes and make sure their strategy is flexible. Entry points for information –e.g., names and short definitions – are important.

10. Question 4: What should the role of NSOs be in dealing with the misuse and misinterpretation of LCS indicators?

NSOs should be proactive. If an indicator is egregiously misused, NSOs should react – for example, with a news release. Again, NSOs should learn from their mistakes, try to anticipate problems, try to be transparent and have a good dissemination strategy in place.

11. Question 5: Are there any other major challenges that you have encountered in disseminating LCS indicators? If so, what are they?

Relationship with politic institutions is a critical point. Trust in official statistics can be affected as a result of misuse of indicators. Another challenge is to monitor user needs and improve technical infrastructure. Sometimes there are particular challenges for certain sets of indicators, such as quality of life or sustainable development indicators, which often involve disseminating a large number of figures. How can large sets of indicators be displayed and understood all at same time? This challenge applies to visualization and also drafting – of analyses, press releases, briefings, etc.

Group 3: Methodological challenges

12. Participants made a general comment that it was not always easy to give general answers to the questions, as the answers often depend on the indicator.

13. Question 1: What are the pros and cons of using a single indicator for a multidimensional phenomenon?

Participants were not in agreement about the premise of the question – that there is such thing as a multidimensional phenomenon. Still, some pros are being able to summarize many different indicators at once and present a clear message. Some cons are a loss of information and oversimplification.

14. Question 2: What criteria should be used for choosing which component indicators are included in a composite indicator? What guidance is needed in this regard?

A clear idea of the concept of what should be measured needs to be determined before components can be chosen. Component indicators should be correlated with this concept. Proxies may need to be used.

15. Question 3: What are the different options for determining weights for indicator components? What are the pros and cons for each?

It was noted that not all indicators use weights (for example, turning point indicators may not use them). If weights are used, principal component analysis, factor analysis, etc. can be used. Complex weighting schemes can be difficult to communicate, but simple weighting schemes may not be objective.

16. Question 4: How can LCS indicators be compared across countries when the availability or periodicity of the component indicators varies? Is it possible to define a set of "core" components for some indicators, without which the indicators should not be constructed?

Regarding periodicity, higher frequency indicators can always be rendered in lower frequency. In principle, core components could be determined, but it depends on the situation in the countries.

17. Question 5: Are there any other major challenges that you have encountered in producing or working with LCS indicators? If so, what are they?

Some challenges are:

-Missing observations or information
-Availability of long time series
-Normalization of indicators

Group 4: Role of NSOs – Criteria for involvement

18. Question 1: What criteria should be met for an NSO to start producing an LCS indicator (e.g., policy relevance or user demand)?

NSOs have to make sure there are human and financial resources to produce the indicator on a regular basis (unlike universities, which can produce an indicator once and then never again). It is helpful to have a clear mandate to produce the indicator, from the government or an official statistics entity.

19. Question 2: When should an NSO leave it to others (e.g., Central Banks or the private sector) to produce an LCS indicator?

Others should produce these indicators when they already have access to relevant data (for example, central banks have access to financial data, so it may be better for them to produce financial indicators). For leading indicators, NSOs should leave production to others when any forecasting is involved.

20. Question 3: What quality criteria should be met for LCS indicators to be considered official statistics?

NSOs can draw upon the Eurostat Statistics Code of Practice. A sound transportation method should be used to limit the risk of losing the trust of the general public.

21. Question 4: How could cooperation between producers be improved at the national level?

Regular meetings could be held to determine a clear division of work – regarding data collection, analysis and communication. Clear regulation of collaboration should be in place. In the beginning, it is important to have competition amongst different institutes. Later, however, it is more productive to know who is in charge of producing which indicators.

22. Question 5: Are there any other major challenges that you have encountered in producing or working with LCS indicators? If so, what are they?

Some challenges are:

-Communication and interpretation of indicators and revisions
-Legal and institutional constraints

-Cultural considerations
-Loss in forecasting accuracy
-For composite indicators, agreeing on dimensions and revising when relevancy of dimensions changes over time

Group 5: Role of NSOs – Risks and challenges

23. Question 1: Is the compilation and dissemination of LCS indicators dangerous for the credibility of NSOs?

In the end, not really, but it depends on how indicators are treated and communicated, how users are informed and the information that is provided along with the indicators.

24. Question 2: What are the main risks involved with an NSO producing LCS indicators? What can be done to mitigate these risks?

One risk is that NSOs treat these kinds of indicators the same they would treat other indicators. Using the same methods as those used for other indicators might be risky and have an impact on how others see credibility. Another point is the question of culture – what do people expect? In Italy, it is normal to have surveys collect sentiment data. In Germany, this is unthinkable. Another risk is that if lower quality indicators are released, some trust may be lost in the higher quality indicators that are released.

25. Question 3: What are the main challenges in communicating /disseminating LCS indicators?

A main challenge is to explain to users how these indicators differ from more usual indicators – that they are based on weights or models and may not exclusively use "hard" data.

26. Question 4: Should indicators that are used to estimate a known value (e.g. leading indicators for GDP) been treated differently from indicators that are based on a concept that cannot be measured directly (e.g. well-being)? How can the performance of the second kind of indicators be assessed?

Regarding the first part of the question: yes, indicators should be treated differently when they are based on a reference series. For indicators not based on a reference series, different options exist for assessing performance, depending on the indicator. For composite indicators, for example, there might be an expectation of how the indicator should have behaved in a certain period. For a pure sentiment indicator, one needs something else to compare it with.

27. Question 5: Are there any other major challenges that you have encountered in producing or working with LCS indicators? If so, what are they?

The group did not have time to answer this question.

Group 6: International cooperation

28. Question 1: What are the main issues related to the international comparability of different indicators?

One major issue is the lack of internally agreed methods and definitions. For some areas these exist, but there is still a need for enhancement. National differences are difficult to deal with, due to cultural differences. There is a need for long time series, especially for sentiment indicators.

29. Question 2: How could international cooperation between different producers of LCS indicators be improved?

More resources are always a need. The organization of more international events such as this one would also be very useful. The way forward will be challenging, but participants expressed optimism about making progress in the long run.

30. Question 3: Is there a need for a common platform to exchange good practices between countries and organizations?

Yes. There are already OECD and Eurostat websites that exists for this, but a case could be made for enhancing these.

31. Question 4: How can NSO production of LCS indicators be encouraged and supported (e.g., by an international statistical program dedicated to this subject)?

The premise of this question is that NSOs should produce LCS indicators. In some cases, other institutes have more resources and experience producing certain indicators (for example, the KOF Economic Barometer) and there is no reason for an NSO to get involved. There is also the question of whether LCS indicators should be considered "official statistics". This determination involves all producers of official statistics, not just NSOs.

32. Question 5: Are there any relationships between national and international indicator sets (SD, HDI, Well-being, Quality of Life, SDGI)?

This question was skipped.

33. Question 6: Are there any other major challenges that you have encountered in producing or working with LCS indicators? If so, what are they?

Some challenges are:

-Structural changes – can create problems with models
-Communication – it may be difficult to explain these indicators to users
-The need for a general framework

However, many problems with LCS indicators are not worse than problems with more usual statistics. It was noted that also e.g. GDP and CPIs have been the subject of much debate, but that does not mean NSOs should not produce them.